

**NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF AVIATION SAFETY
Anchorage, Alaska, 99513**

April 18, 2005

Search and Rescue Group Chairman's Factual Report

DCA-05-M-M-008

A. ACCIDENT

Location: Skan Bay, Alaska

Date/Time: 12/8/04 1823 AST

Aircraft: Sikorsky HH-60J, CG6020

B. Search and Rescue (SAR) Group

Chairman: Scott Erickson
National Transportation Safety Board
Alaska Regional Office
Anchorage, Alaska

C. Summary

On December 8, 2004, approximately 1823 Alaska standard time, a U.S. Coast Guard HH-60J helicopter, CG6020, was destroyed when it crashed into ocean waters near Skan Bay, Alaska. The helicopter was assigned to the U.S. Coast Guard Air Station Kodiak, and was conducting rescue hoisting operations off the vessel Selendang Ayu, that had grounded near the shore of Skan Bay, about 53 degrees, 38 minutes north latitude, and about 167 degrees, 07 minutes west longitude. Six civilians that had been rescued from the vessel, and were still aboard the helicopter, are missing and presumed to have received fatal injuries. One previously rescued civilian received serious injuries. The crew of the helicopter, which included the two pilots and the flight mechanic/hoist operator, received minor injuries. Dusk visual meteorological conditions prevailed at the time.

The crew of CG6020 was conducting rescue operations while hovering over the bow of the Selendang Ayu, a 738-foot freighter, to remove the last remaining crewmembers after the vessel went aground. The removal of the crewmembers was conducted by hoist line with a rescue basket, as the helicopter was positioned in a hover. Seven crewmembers from the vessel were brought on-board the helicopter, and the crew of the helicopter were engaged in the rescue of the master of the vessel, and the helicopter's rescue swimmer, who was coordinating the on-deck portion of the rescue.

The hoisting rescue operation, and the accident, was observed by another U.S. Coast Guard helicopter, CG6513, which was a Eurocopter HH-65B that was deployed from the U.S. Coast Guard Cutter ALEX HALEY. The crew of CG6513 observed a large wave strike the grounded

vessel's bow. The wave/ocean spray, carried by high wind, cascaded over the hovering CG6020. The engines of CG6020 quit, and the helicopter descended. The tail of the helicopter and main rotor blades collided with the vessel. The helicopter continued to descend, collided with the water, and overturned and sank.

The crew of CG6513 immediately began conducting rescue hoist operations over the crashed helicopter. Five survivors were initially observed in the water. Four survivors from the helicopter were retrieved, and transported to Dutch Harbor.

The Selendang Ayu broke apart about 1920. The vessel's master, and the Coast Guard's rescue swimmer from CG6020, were still onboard the vessel when it broke apart. They were hoisted off the starboard side of the vessel about 2056 by CG6513. The crew of CG6513 conducted a shoreline search for any missing vessel crewmembers until about 2126, and then returned to Dutch Harbor. A search for the missing crewmembers by rescue aircraft and vessels, continued until suspended on December 10, 2004, at 1730.

D. Details of the Investigation

1. History of Flight

Review of the Coast Guard's situation reports disclosed that the master of the Selendang Ayu called for assistance on December 7, 2004, about 0052, stating that the vessel had been adrift for 13 hours. The vessel was 27 nautical miles northwest of Bogoslof Island in the Bering Sea. The master reported that he had been attempting to repair the vessel's only engine. The master of the vessel expressed concern that within about 15 to 16 hours, the vessel might run aground on Bogoslof Island. The Coast Guard Cutter ALEX HALEY, and ocean tug vessels were dispatched to the area of the drifting vessel to offer assistance. Several attempts to take the Selendang Ayu under tow were unsuccessful. On December 8, at 0845, the master of the vessel reported to the Coast Guard that all hands aboard were essential personnel, and the engine could not be operated, even to move the vessel further away from shore.

According to Coast Guard personnel at Air Station Kodiak, on December 8, 2004, two HH-60J helicopters and flight crews, consisting of CG6020 and CG6021, and a C-130 airplane, were initially deployed to Cold Bay, Alaska, to begin rescue-ready status from the Island of St. Paul, Alaska. After the Coast Guard was notified that the Selendang Ayu was adrift in the Bering Sea, CG6020 was positioned to Dutch Harbor, Unalaska, Alaska, under Coast Guard case 05-026, to assist in the rescue of the 26 crewmembers from the vessel.

The Coast Guard described the sea conditions as 30 to 40 foot swells, which at times had the propellers of the ALEX HALEY out of the water. The ALEX HALEY is 283 feet long. Due to the sea conditions, CG6513, the HH-65 helicopter carried aboard the ALEX HALEY, did not launch.

The Coast Guard reported that numerous radio conversations were conducted with the master of the vessel in an attempt to convince the master to abandon the vessel in a timely manner. The master finally agreed to remove some of his crew, but he wanted to retain a few of his crew to conduct continuing efforts to either restart the vessel's engine, or stop the vessel's

drift with its anchors. The vessel's crew dropped the port anchor and chain, which soon failed, and then the starboard anchor, which appeared to either slow, or stop the vessel from drifting. The helicopter commander of CG6513, aboard the ALEX HALEY, reported overhearing a confusing conversation between the ALEX HALEY and the master of the vessel, in which the master said the anchor was holding, and he needed eight personnel to repair the engine, after previously stating that no engine repairs could be made.

The crew of CG6020 departed Dutch Harbor, and upon arriving on-scene, observed the vessel's crew deploy the starboard anchor. The vessel rotated into the wind, and the master of the vessel reported that the anchor was holding. He also told the ALEX HALEY that his instruments were showing that the anchor was not holding, but he seemed convinced the anchor was holding. The master of the vessel agreed to evacuate some of his crewmembers, and the crew of CG6020 began hoisting operations from the vessel about 1405. The crew of CG6020 reported that the vessel crew would appear on deck, and then disappear, and reappear in a "leisurely manner." At one point during the hoisting operation, the vessel crewmembers placed personal luggage in the rescue basket. The crew advised the master of vessel that luggage was not allowed. The hoisting operation by CG6020 eventually transferred 9 crewmembers from the vessel to the ALEX HALEY. Nine other crewmembers were hoisted from the vessel by CG6021, and transported to a beach. The crew of CG6020 then picked up the 9 crewmembers from the beach and returned to Dutch Harbor, Unalaska, Alaska, for refueling. CG6021 remained on-station until departing for Cold Bay.

About 1718 the master of the vessel reported that the ship was aground, and requested evacuation of the remaining 8 crewmembers. At that time, the Selendang Ayu had been dead in the water, and adrift, for about 40 hours. When the call came from the vessel, the crew of CG6020 was requested to launched from Dutch Harbor about 1720, which was their third sortie of the day. The crew had flown five hours before launching on the accident flight. CG6021 was en route to Cold Bay for a crew change. The crew of CG6513 prepared to launched from the ALEX HALEY under extreme conditions, and finally succeeded even though the vessel's helideck was beyond pitch and roll limits. CG6513 proceeded toward the grounded vessel, and CG6020 was on-scene about 1807, about five minutes after CG6513. Due to the larger cabin capacity, and the crew's familiarity with the hoisting location, the crew of CG6020 decided to perform the hoist. CG6513 took up a hover position about 200 feet msl, and about 200 yards behind CG6020.

The crew of CG6020 moved into position to begin hoisting operations from about a 60-foot hover. The hoisting cycles were conducted in conditions described by the crew as 45 knot winds, heavy seas, and wave heights of 30 feet. The pilot reported that occasionally, waves were washing over the bow and deck of the vessel, and wind-driven spray would hit the windshield of the helicopter, but not heavy enough to require the use of the windshield wipers. When the rescue basket was lowered to the deck of the vessel, the crewmembers did not approach it, and the basket had to be raised. The rescue swimmer from CG6020 was placed on-deck and he gave instructions to the vessel crew to get them moving toward the basket. Waves were occasionally washing over the bow, and twice knocked the rescue swimmer off his feet as he was assisting vessel crewmembers into the rescue basket. The crew of CG6020 rescued 7 vessel crewmembers, and once inside the helicopter, each of the vessel crewmembers occupied a seat across from the side door of the helicopter, but did not buckle a

seatbelt. The helicopter crew prepared to complete the hoisting of the master of the vessel, to be followed by the helicopter's rescue swimmer.

The copilot was monitoring the wave sets approaching the bow of the grounded vessel, which was in the break zone. After retrieving the seventh passenger, the copilot noticed a large wave set approaching the grounded vessel. He advised the flying pilot about the approaching wave, and then assisted in pulling up-collective to raise the hover height of the helicopter. The wave hit the bow of the vessel, and produced a vertical column of water about 80 to 100 feet high. The wall of water, driven by the wind, engulfed the entire helicopter, and both engines quit. The helicopter began to descend. The tail rotor struck the vessel, separating the vertical tail pylon. As the helicopter continued to descend, the main rotors struck the vessel. Upon water impact, the helicopter immediately rolled inverted, and began to sink.

The copilot reported that after water impact, he quickly evacuated the helicopter via the left door window. He emerged on the surface and eventually inflated his life preserver.

The flying pilot reported that after the helicopter was struck by the wave of water, he recalled hearing an annunciator tone for "stabilizer disconnect." He said he was underwater for several minutes, and had to utilize his emergency air supply. He eventually was able to find the right side door handle, and exited the helicopter. He was the last of the helicopter occupants to surface.

The flight mechanic reported that the helicopter became "awash" in water, with water "blasting" through the open right rear door. He recalled yelling "up, up, up." He heard the engines spool down and the nose of the helicopter lowered as it began descending. He heard a loud "bang" and the helicopter shuddered. After water impact, he grabbed a handle next to the door, and remained grasping the handle as the helicopter inverted. Once inverted, he recalled that he was still standing at the door. He attempted to egress the helicopter, but was initially restrained by his safety harness. Once released from the harness, he activated his life preserver.

The rescue swimmer, on the deck of the Selendang Ayu, reported that after the seventh hoist, he turned to bring the master of vessel to the hoist area. He heard the sound of CG6020's engines winding down, and out of the corner of his eye, saw the helicopter moving forward and downward, descending below the railing of the vessel. He then heard and saw the helicopter's main rotor blades strike the rail, and the side of the vessel. The rescue swimmer reported that he then turned his attention to a survival plan for himself, and the master of the vessel. He indicated that while on the deck, he heard alarms, indicating flooding, and eventually heard a loud "boom" as the vessel broke in-half. The rescue swimmer and the master of the vessel remained on the forward half of the vessel until rescued by CG6513.

From their hover position, the crew of CG6513 observed CG6020 being struck by the wave and the subsequent crash. The crew of CG6513 immediately began rescue hoisting of the crash survivors. They reported that they saw 5 targets in the water. They placed the rescue basket next to each target that appeared mobile, and each crewmember was able to get into the basket without assistance. The fourth target, a survivor from the vessel, appeared unresponsive. He was retrieved from the water by dragging the rescue basket next to him, but he became entangled in the rescue cable. The flight mechanic hoisted the rescue cable,

which also brought the survivor up, and learned that the survivor was entangled by his neck by the cable. Once aboard, he exhibited signs of life. At the completion of the fourth hoist, the fifth survivor in the water was no longer visible.

The flight mechanic of CG6513 reported that he observed the flying pilot from CG6020 come to the surface of the water last. He saw the pilot swim over to a floating vessel crewmember that appeared unresponsive. The pilot appeared to grab, or shake, the crewmember, and splash water on his face to illicit any response. There was no response. The pilot then entered the rescue basket.

The crew of CG6513 indicated that once all visible survivors were aboard, they conducted a visual search for survivors in the water around the grounded vessel, and along the shore. GC6513 returned to Dutch Harbor, refueled, and returned to the Selendang Ayu to retrieve the master of the vessel and the rescue swimmer. The crew of CG6513 then conducted another search for survivors before returning to Dutch Harbor.

2. Injuries to Persons

<u>Injuries</u>	<u>Crew</u>	<u>Passengers</u>	<u>Total</u>
Fatal	0	6	6
Serious	0	1	1
Minor/none	<u>3</u>	<u>0</u>	<u>3</u>
Total	3	7	10

3. Crew Information

Flying Pilot

The flying pilot qualified as an aircraft commander on April 4, 2002. He qualified as an aircraft commander in Alaska, on April 4, 2004. He completed dunker training on January 14, 2004, and egress training on December 5, 2003. Dunker training is required by the Coast Guard every 6 years. His most recent search and rescue (SAR) check was completed on May 13, 2003. The SAR check covers search and rescue tasks required for SAR operations. His most recent instrument check, which includes crew resource management (CRM), and operational risk management (ORM) training, was completed on January 16, 2004. His most recent standardization check was completed on May 6, 2004. A standardization check covers flying maneuvers and emergency procedures. He had accrued about 2153.1 total flight hours.

Copilot

The copilot qualified as an aircraft commander in Alaska, on January 17, 2003. He is a qualified instructor pilot, and a flight examiner. He was the designated aircraft commander for the flight. He completed dunker training on August 29, 2001, and egress training on November 25, 2003. His most recent SAR check was completed on April 7, 2004. His most recent instrument check was completed on April 14, 2004, which included CRM and ORM training. His most recent standardization check was completed on March 29, 2004. He had accrued about 3,975.7 total flight hours.

Flight Mechanic

The flight mechanic was assigned to Air Station Kodiak in June, 2004. His previous assignment was Air Station Sitka, Sitka, Alaska. He became a qualified aircrew in the HH-60 on March 15, 1999. He qualified as a flight mechanic on HH-65 helicopters on October 14, 1992, and as a qualified flight mechanic on HH-60 helicopters on October 30, 2001. His most recent CRM and maintenance resource management (MRM) training was completed on January 20, 2004. He completed dunker training on January 11, 2001, and egress training on December 19, 2003. His most recent SAR check was completed on April 21, 2004.

Rescue Swimmer

The rescue swimmer has been in the Coast Guard for the past three years. He was assigned to Air Station Kodiak for the previous seven months. He became a qualified aircrew, and as a rescue swimmer in the HH-60 on November 8, 2004. He completed CRM training on February 26, 2004, and MRM training on March 1, 2004. He completed dunker training on January 29, 2005, and egress training on October 14, 2004. His most recent SAR check was October 27, 2004.

4. Aircraft Information

The helicopter, a Sikorsky HH-60J, is a land-based rescue helicopter. It can be configured for a variety of rescue missions, and usually carries a crew of two pilots, a flight mechanic/hoist operator, and if needed, a rescue swimmer. Hoisting operations may involve the use of a rescue basket, litter, trail line, or the deployment of a rescue swimmer into the water, with retrieval via hoist line or basket.

The helicopter has an overall length, from main rotor tip to the tail rotor, of 64 feet, 10 inches. The helicopter's rotor has a diameter of 53 feet, 8 inches, and a fuselage length of 54 feet. The helicopter is equipped with two General Electric T700-GE-401C engines. The helicopter's flight manual contains emergency procedures for a dual engine failure that state, in part: "1. Nr – Maintain; 2. Airspeed – Adjust to 75 to 95 KIAS; 3. If altitude permits, turn into the wind, analyze – perform engine restart procedure if practicable, perform emergency landing procedure; 4. At approximately 200 feet agl, initiate a flare to decrease airspeed and rate of descent; 5. At 35 to 60 feet assume the landing attitude, eliminate yaw and drift; 6. Cushion landing with collective."

The helicopter is configured with the flying pilot occupying the right seat, the copilot occupies the left seat, and flight mechanic, when hoisting, is positioned at the right door. When utilized, the rescue swimmer is stationed in the helicopter behind the copilot's seat.

The helicopter has five emergency exit points. Emergency egress can be accomplished through the left and right pilot's doors and windows, the main cabin door and window on the right side, and via two windows on the left side of the cabin.

The helicopter has the ability to maintain a preselected hover height based on radar altitude. The use of radar altimeter for hover is usually not appropriate when operating over open water, and then transitioning over the deck of a vessel, or when sea conditions are extreme.

A second altitude hold feature is based on barometric pressure. This feature is usually used in cruise flight. A third altitude hold feature is incorporated with the helicopter's Doppler navigation system, and is used to hold a position over a specific spot. At the time of the accident, the pilot was not utilizing any hover-hold feature.

The Coast Guard's HH-60J helicopters are equipped with a video camera, termed a "hoist cam" that records an external view of the helicopter from above the hoist operator's position at the right door. The Coast Guard reported that the accident helicopter's camera was recovered, but the electrical power switch had failed to the "on" position. This switch failure allowed the recording video tape to run continuously to the end of the tape, which stopped recording before the accident occurred.

The accident helicopter was equipped with a voice and data recorder (VADR), which was recovered from the wreckage. The Coast Guard reported that the VADR was sent to the manufacturer.

5. Meteorological Information

The weather conditions at the rescue site were described by the crew of CG6020 as "extraordinary." The light conditions were dusk. Due to frequent snow squalls, in-flight visibility varied from 1 to 2 miles, to almost zero, with horizontal snow pellets. Turbulence was described as moderate to severe. The flying pilot reported that he could see the bow of the vessel and the ocean waves. The wave heights were about 30 feet, and the wind was about 45 knots.

6. U.S. Coast Guard Air Station Kodiak

The Air Station's mission statement, states, in part: "Provide Maritime Homeland Security, SAR response and logistics throughout Alaska..." The air station covers coastal waters from Icy Bay, Alaska, to the Bering Sea. The area of operations contains coastal and mountainous terrain, and vast areas of open ocean. It is the largest area of operations in the Coast Guard. The air station has five C-130 airplanes, four HH-60 helicopters, and four HH-65 helicopters. The air station reports to Coast Guard District 17, Juneau, Alaska, where the Coast Guard's Alaska Rescue Coordination Center is based.

The U.S. Coast Guard utilizes a service-wide operational risk management (ORM) policy. ORM, as defined by the Coast Guard, is a "continuous, systematic process of identifying and controlling risks in all activities according to a set of preconceived parameters by applying appropriate management policies and procedures. This process includes detecting hazards, assessing risks, and implementing and monitoring risk controls to support effective, risk-based decision making."

The Coast Guard's ORM policy includes several principles that state, in part: "Accept no unnecessary risk; accept necessary risk when benefits outweigh costs; make risk decisions at the appropriate level; ORM is just as critical in executing as in planning all activities."

Implementation of ORM may include the use of checklists, operations manuals, standard operating procedures, training doctrines, pre and postdeployment briefings, stress related

issues, orientation and indoctrination programs for new personnel, maintenance procedures, hazardous materials procedures, recreational activities, fiscal management, acquisition, and accountability procedures.

7. Air Station Kodiak Procedures

Due to the unique operating environment, including extreme weather conditions experienced in Alaska, Air Station Kodiak requires extensive aircraft command experience before a pilot is authorized to be an aircraft commander in Alaska. This is termed as "wintering over," and the air station has established an area qualification program, which requires completion of a qualification syllabus.

Search and rescue mission flights are authorized by the air station's commanding officer, via the air station's operations officer. Each operational period designated by the commanding officer is under the supervision of the operations duty officer (ODO) in compliance with the operations center standing orders. The ODO is authorized to divert or initiate the launch of aircraft for urgent SAR missions. Aircraft commanders, and their crew, decide whether to take the mission, and usually will launch within 30 minutes.

Helicopter pilots and their crew, have a flight schedule established by the operations center. Normally, crews may fly up to 6 hours in a 24 hour period, and then are expected to receive 10 hours of rest before resuming flying. If a crew accrues 8 hours of flight time in a 24 hour period, they are expected to receive 15 hours of rest.

8. Flight Operations

Weather briefings are provided for pilots at the air station at 0800 and 1600. Every type of rescue scenario has a standardized procedure associated with each scenario. The crew utilizes a standard briefing, standard procedures, and standard checklists before, during, and after each type of rescue. Rescue procedures are specified in the HH-60J flight manual, and include, hoisting from boats, the use of a variety of rescue devices, delivery of pumps, water hoisting with a rescue swimmer, deployment of the rescue swimmer to vertical surfaces, deployment of marine markers, and use of standard phraseology.

9. Hoisting procedures

According to the Coast Guard's, HH-60J pilot's pocket checklist, If the pilot and crew decide to conduct hoisting operations from a vessel, and communication is possible, the vessel crew should be briefed about hoisting procedures. The helicopter crew will complete a rescue checklist. Part 1 of the rescue checklist is completed prior to approach.

Rescue checklist Part 2 ensures that a rescue briefing is complete, which may include engine power available vs. engine power required, wind and sea conditions, the type of recovery, rescue equipment to be used, hoisting area (if necessary), desired heading, altitude, and obstacle clearance, copilot actions, intentions in the event of an engine malfunction, procedures to be used in the event of an intercom failure, fouled cable/shear procedure, and a consideration of the possibility of leaving the rescue swimmer on-scene. At the completion of Part 2, the helicopter crew are ready to hoist.

Coast Guard personnel indicated that hoisting operations are conducted from a variety of positions, relative to the target, but the flying pilot, in the right seat, will attempt to maintain a stationary position at a hover by visually referencing some portion of the vessel. The hoisting altitude above the target may range from 30 to 100 feet, based on the need to avoid any hazardous obstacles in and around the pick-up position, wind condition, sea condition, visibility, and the need to conduct fast hoisting cycles. When actually hoisting a load, the flight mechanic may "conn" the pilot, using verbal commands, to assist him in placing the helicopter as directly over the load as possible. If the pilot loses sight of his visual reference point, he will call "lost target." The copilot in left seat is the safety pilot, and will keep an eye on altitude, power, the radio, and will clear the tail back and left.

Coast Guard personnel also reported that when conducting hoists, the speed of multiple hoists is dependent on the hover height. A high hover means longer times for the basket to descend and return to the helicopter. A lower hover means less time for basket travel, and speed may be important for a particular mission. When hoisting, the helicopter crew may also consider any required obstacle clearance, and the velocity of the wind, which can make the hoist basket sail behind or to the side of the hovering, helicopter. The further the basket sails, either from the wind or a high hover height, the more offset the helicopter must be from the target, and therefore further from the pilot's visual reference point on the vessel.

At the conclusion of hoisting operations, the crew will prepare for forward flight, and complete rescue checklist Part 3.

10. Survival Aspects

The helicopter crewmembers received Coast Guard survival training and aircraft egress training. They were equipped with flight suits that were full body drysuits made of a Nomex material. A full body fleece insulating layer was worn under their drysuit. They were each wearing a Coast Guard survival vest that incorporates personal flotation, a personal emergency locator beacon (PLB), signaling devices, and a helicopter emergency escape/egress device (HEED), which is a small compressed air cylinder with a mouthpiece that provides a few minutes of air for egress from the helicopter after ditching.

Coast Guard personnel must undergo dunker training every 6 years. This training utilizes a fuselage shaped cylinder with seats, doors, and windows that is immersed in water. It can be rotated upside down to simulate the environment of an inverted aircraft. Egress training is required every 2 years. This involves dry land training in an aircraft, while wearing a hood, to reinforce the steps involved for escape from an aircraft. Survival water egress training (SWET) is conducted annually. It utilizes a seat inside a cage that is lowered into water, rotated upside down, and requires personnel to swim out of the inverted simulated fuselage. Each crewmember of CG6020 had completed their annual SWET phase.

The flotation devices for Coast Guard crewmembers is an inflatable collar, incorporated into their survival vest. Their survival training includes the aspect of not inflating their vest until clear of the helicopter, so that positive buoyancy does not pin them inside the helicopter.

The crew of CG6020 described the vessel crewmembers as wearing street clothes, and each were wearing a Type II personal flotation device (PFD). These are rigid flotation vests that provide positive buoyancy.

The crew of CG6020 indicated that once they were in the water, their drysuits provided some flotation. Activation of their survival vest flotation provided positive flotation. Once on the surface of the water, each crewmember described attempting to swim away from the helicopter and the side of the grounded vessel. Each crewmember's flight helmet has a reflective finish, and each helmet has reflective tape applied in a specific Coast Guard pattern.

Each crewmember described their initial immersion into the water as similar to their training. They noted that they felt warm, except for their hands, which initially were covered only by leather/Nomex flight gloves. Some of the crew put on additional gloves that are carried in their flight suits. The estimated time in the water for the survivors of the crash was 12 to 15 minutes.

The crew of CG6513 reported that following the crash, they saw five targets in the water, and began hoisting of those targets that appeared mobile. The fourth target appeared unresponsive, but a rescue was attempted by dragging the rescue basket next to him. The flight mechanic hoisted the rescue cable, which brought the survivor up, and he discovered that the survivor was entangled by his neck by the cable. Once aboard, the survivor exhibited signs of life. The fifth target, another crewmember from the vessel, was no longer visible. When the crew of CG6513 arrived at the hospital in Dutch Harbor, the survivor's core body temperature was 87 degrees.

11. Additional Information

The Search and Rescue group chairman traveled to Air Station Kodiak on December 10, 2004, to assist in the investigation of the aerial search and rescue aspects associated with the grounding of the Selendang Ayu. The group chairman was designated as an adjunct member/observer of the U.S. Coast Guard's Administrative Investigation Board.

12. Interviews

A copy of interview summaries obtained during the investigation are contained in the public docket of this report.

Scott Erickson
Air Safety Investigator
April 18, 2005